

ERP Systems Implementation Measures Using Balanced Scorecard Approach

Introduction

Implementing Transformational or Improvement projects such as enterprise **resource planning (ERP)** system – SAP, Oracle Applications .etc - requires defining (1) Critical objectives that must be carefully considered in order to ensure successful ERP implementation, (2) viewing the organization from four perspectives - Financial, Business Process, Customer, and Learning and Growth-, and (3) to develop metrics, collect data, and analyze it relative to each of these perspectives.

Drawing from Kaplan's and Norton's BSC approach, the Strategic Control Matrix ("**Perspectives, Objectives and Measures Matrix**"), presented below may be used to enable technology improvement projects such as ERP to be linked with shareholder value creation while providing several measurable short-term outcomes that guide and monitor strategy implementation.

Critical objectives for ERP

Critical objectives that must be carefully considered in order to ensure successful ERP implementation include, but not limited to:

1. Reduction of corporate operating cost
2. Increasing revenue growth
3. Reduction of transaction time
4. Improving Customer satisfaction
5. Integration of working flows from subunits
6. Avoidance of operational bottlenecks
7. Enhancing employee productivity

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Perspectives, Objectives and Measures Matrix

The matrix presents below links the Financial, Business Process, Customer, and Learning and Growth “**Perspectives**”, to the “**Critical Objectives**”, and “**Measures**”. Companies implementing ERP systems can tailor the matrix to suit their operating environment.

Strategic Perspectives	ERP Critical Objectives	Strategic Measures
Financial Perspective	Reduction of Corporate Operating Cost	<ol style="list-style-type: none"> 1. A/R turnover rate 2. Inventory turnover rate 3. Procurement cost
	Increasing revenue growth	<ol style="list-style-type: none"> 1. Operating net income 2. Returns of investment 3. Sales growth rate 4. Earnings per shares
Customer Perspective	Reduction of transaction time	<ol style="list-style-type: none"> 1. Rate of delivery on time 2. Products delivery on time
	Improving Customer Satisfaction	<ol style="list-style-type: none"> 1. Corporate image 2. Frequency of customers' complaints 3. Customers' reacting time 4. Customers' satisfaction 5. Customer retention
Internal Perspective	Integration of working flows from subunits	<ol style="list-style-type: none"> 1. Invoice process effectiveness 2. Number of problem with standards report 3. Accuracy of inventory records 4. Financial reports on demand
	Avoidance of operational bottlenecks	<ol style="list-style-type: none"> 1. Emergency response time in order processing 2. ERP system availability 3. Purchasing time 4. Response time in order processing 5. Average time to upgrade ERP system 6. Average response time in delivery processing
Innovation & Learning Perspective	Enhancing employee productivity	<ol style="list-style-type: none"> 1. Task complexity 2. Employee retention rate 3. Frequency of computer usage 4. Productivity per employee 5. Service error rate 6. Organization flows 7. Employee training hours 8. Employee loyalty
	Reliability of software vendor	<ol style="list-style-type: none"> 1. Number of releases per year